REMARKS

Applicants have carefully reviewed the Office Action mailed July 19, 2006 in which claims 1-8, 10-12, 16, 17, and 21-23 were rejected. Claims 18-19 have been withdrawn from consideration and claims 9, 13-15, 20 and 24-32 were previously cancelled. The specification has been amended in order to correct an error, as discussed below.

Amendments to the Specification

The specification was objected to because the tradename LICA-44 was referred to as being two different chemical structures in paragraphs [0042] and [0046] of the application. Please amend the specification as noted in the "Amendments to the Specification" section above. The chemical name for LICA-44 in paragraph [0046] of the application has been corrected in order to be consistent with the chemical name given in paragraph [0042] of the application.

Rejections under 35 U.S.C. § 103

Claims 1-8 and 10-12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Peters et al., U.S. Patent No. 5,549,552 (hereinafter "Peters") in view of Krahnke et al., U.S. Patent No. 5,470,923 (hereinafter "Krahnke"). Applicants respectfully traverse this rejection. In order to render a claim obvious, there must be some motivation to combine the references, and the motivation or suggestion must be found in the cited prior art. See M.P.E.P. §2143.01. To establish a *prima facie* case of obviousness, a reasonable chance of success is also required. See M.P.E.P. §2143.03.

Claim 1 recites, in part, a metallic tubular member with a polymeric tubular member disposed over at least a portion of the metallic tubular member, forming a lap joint. A coupling

agent comprising a functionalized titanate is disposed between the metallic tubular member and the polymeric tubular member within the lap joint.

Peters discloses a balloon dilation catheter with improved pushability, trackability and crossability. The catheter shaft can have an outer tube and an inner tube. For example, Figure 2 appears to show an outer tube 35 disposed about an inner tube. The inner tube can comprise a proximal inner tube 33 and a distal inner tube 34. The proximal and distal inner tubes can be attached by various methods (see column 7, lines 14-16). In attaching the distal and proximal inner tubes, a suitable medical grade adhesive such as cyanoacrylate or urethane may be used to secure the lap joint (see column 7, lines 21-23). Peters states that a lap joint length of about 3 to 5 mm with cyanoacrylate or urethane provides sufficient bond strength (see column 7, lines 46-49).

Krahnke discloses a moisture-curable silicone pressure-sensitive adhesive (SPSA). The disclosed SPSAs can apparently be cured in the presence of water. See column 1, line 66 through column 2, line 2. A portion of the SPSAs of Krahnke can have curing radicals, which allows the SPSAs to cure in the presence of water. Krahnke states that, in certain cases, a catalyst can be used for accelerating the curing of the SPSA. See, for example, column 7, line 54 through column 8, line 3. Included in these catalysts are some examples of titanates.

Applicants assert that there is no motivation or suggestion to modify Peters with Krahnke as proposed in the Office Action and, as such, the combination of Peters and Krahnke cannot be used to establish a *prima facie* case of obviousness. There is no motivation or suggestion to modify Peters with Krahnke for multiple reasons, some of which are presented below.

For one thing, Peters already contains an adhesive (such as cyanoacrylate or urethane) that, in the form of a lap joint, "provides sufficient bond strength". (Column 7, line 47.) In order

to incorporate an additional adhesive into the structure of Peters, the additional adhesive would have to either be added to, or replace, the adhesive of Peters. Because Peters states that there is "sufficient bond strength" with the disclosed adhesives, no motivation exists to add a second adhesive or to replace the adhesives disclosed in Peters with an additional adhesive such as the adhesives in Krahnke. Neither reference suggests that any of the adhesives of Krahnke would form a better bond than the adhesives disclosed in Peters, and thus one of ordinary skill in the art would not be motivated to replace the adhesives disclosed in Peters with the adhesives of Krahnke. For the above reasons, no motivation exists to modify Peters with Krahnke as proposed.

Further, Krahnke does not actually disclose a titanate being used on its own as an adhesive. It was stated in the Office Action that Krahnke "teaches that it is known to have titanate derivatives used as coupling agents." See paragraph 6 of the Office Action. Applicants respectfully disagree with this statement; Krahnke does not disclose titanates being used as coupling agents. Rather, Krahnke discloses titanates that can apparently be added to a SPSA in order to speed up the curing of the SPSA in the presence of water. Because they are not being used as adhesives, it cannot be said that one of ordinary skill in the art would be motivated to use the titanates of Krahnke as an adhesive in the structure of Peters. Simply put, neither Peters nor Krahnke disclose a suggestion or motivation to use a titanate for anything other than as a catalyst, and as such, one of ordinary skill in the art would not be motivated to use the titanates of Krahnke as an adhesive in Peters.

In fact, the only source that teaches or suggests that a titanate may lead to a particularly desirable bond is the current application. (See, for example, the Abstract and the first paragraph of the Summary of Invention section.) Thus, it appears as though one of two sources of

motivation is being drawn upon in order to combine these references, either: 1) a suggestion or motivation that is found only in the current application and/or 2) that one of ordinary skill in the art would be motivated to try the functionalized titanate of Ichinose in Peters. Neither source of motivation is proper.

As mentioned above, the only source of motivation for adding a titanate to the structure of Peters appears to be the current application, which speaks about improving the joints between dissimilar materials within a medical device by using a functionalized titanate. (See the first paragraph of the Summary of Invention section.) Neither Peters nor Krahnke teach that the functionalized titanate is better than, or should replace, the adhesives disclosed in Peters (e.g., cyanoacrylate or urethane). Only the current application appears to provide such motivation, and using the current application as a source of motivation for combining references would be an impermissible use of hindsight. See M.P.E.P. §2145, part X.

Further, it also appears as though the "obvious to try" standard may have been used in formulating the obviousness rejection. Because neither of the references being combined provides a suggestion or motivation to replace the adhesives disclosed in Peters with the titanates of Krahnke, the Examiner may be asserting that it would have been obvious for the Applicants to try the titanates of Krahnke in the structure of Peters. It appears as though the Examiner is asserting that, if the Applicants would have tried the titanates, they would have found out that the functionalized titanate results in a coupling agent that is "particularly suitable for bonding polymeric materials to metallic components of frameworks of medical devices." (See paragraph two of the Summary of Invention section of the current application.) However, the "obvious to try" standard is not a proper standard for finding obviousness. See M.P.E.P. §2145, part X.

There must be some motivation or suggestion in the prior art that would lead one of ordinary skill in the art to make the proposed combination.

Because there is no motivation or suggestion in the prior art that would lead one to make the proposed combination, these references cannot be used to render the claims of this application obvious. As such, Applicants assert that claims 1-8 and 10-12 are allowable over these references.

Further, M.P.E.P. §2143.02 requires a reasonable chance of success in order for a combination of references to render a claim obvious. Krahnke discloses only a titanate that is being used as a catalyst in order to speed up the curing of a SPSA in the presence of water. One of ordinary skill in the art would not expect a reasonable chance of success in using a compound that is described as a catalyst in the structure of Peters for the simple fact that none of the titanates are described as an adhesive. Because Krahnke does not mention that the titanates can be used in the manner recited in claim 1, there is no reasonable expectation of success that Peters can be modified by Krahnke and result in the invention of claim 1. Thus, Applicants assert that it is not proper to combine Peters with Krahnke as proposed, and that claims 1-8 and 10-12 are allowable over these references.

Claims 16, 17 and 21-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Peters and Krahnke, in further view of Ichinose et al., U.S. Patent No. 5,681,402 (hereinafter "Ichinose"). In order to render a claim obvious, there must be some motivation to combine the references, and the motivation or suggestion must be found in the cited prior art. See M.P.E.P. §2143.01. Further, there must be some reasonable expectation of success in making the proposed combination. See M.P.E.P. §2143.02.

As mentioned above, there is no suggestion or motivation to modify Peters with Krahnke as proposed in the Office Action, nor is there any reasonable expectation of success in making such a combination. Because the combination of Peters and Krahnke cannot be used to establish a *prima facie* case of obviousness, the combination of Peters, Krahnke and Ichinose also cannot establish a *prima facie* case of obviousness.

Further, it was argued in the previous Response that there is no motivation or suggestion to modify Peters with Ichinose. Applicants argued that, because Peters already contains an adhesive that, in the form of a lap joint, "provides sufficient bond strength," one of ordinary skill in the art would not be motivated to replace or add to the adhesives of Peters with the titanate of Ichinose. Further, when looking to the invention as a whole (as required by, for example, M.P.E.P. §2141, part II), Ichinose does not disclose a titanate being used as an adhesive; rather, Ichinose discloses a conductive adhesive that comprises a titanate. Neither Peters nor Ichinose mention the need to conduct electricity through a medical device such as Peters, and as such there is simply no reason that one of ordinary skill in the art would be motivated to place a conductive adhesive of Ichinose in the structure of Peters. Applicants argued that the only source of motivation or suggestion to combine Peters with Ichinose was the present application (which would be impermissible hindsight) or the obvious to try standard (which is improper according to M.P.E.P. §2145, part X). Further, it was argued that Ichinose was non-analogous art to the current application.

For each of the above reasons, the Applicants asserted that there is no motivation or suggestion present in the prior art to combine Peters and Ichinose as proposed in the Office Action. It appears as though the Examiner was convinced that Peters could not be modified by Ichinose as proposed, and a new rejection was issued in the presently outstanding Office Action.

Applicants point out that, if there is no motivation to combine Peters and Ichinose, then there cannot similarly be a motivation or suggestion to make the combination of Peters, Ichinose and Krahnke.

Because there is no motivation to combine Peters with either Krahnke and/or Ichinose, the combination of Peters, Krahnke and Ichinose cannot be used to establish a *prima facie* case of obviousness. As such, Applicants assert that claims 16, 17 and 21-23 are allowable over this cited prior art.

Reexamination and reconsideration are respectfully requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Lixiao Wang et al.

By their Attorney,

Date: 10/19/06

David M. Crompton, Reg. No. 36,772
CROMPTON, SEAGER & TUFTE, LLC
1221 Nicollet Avenue, Suite 800
Minneapolis, MN 55403-2420
Telephone: (612) 677-9050
Facsimile: (612) 359-9349